MUSCULAR-SKELETAL DISORDERS – Health Care Use & Policy Studies

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THE IMPACT OF THE DRUG CATEGORIZATION ON THE PRESCRIPTION AND CONSUMPTION OF NONSTEROIDAL ANTIINFLAMATORY DRUGS (NSAID)

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OBJECTIVES: This study deals with the impact of regulatory measures represented by the drug categorization on the prescription and at the use of nonsteroidal and antiinflammatory drugs (NSAID) and asses measures of the state health policy and their application in the Slovak Republic within year 2009. **METHODS:** Analysis was conducted with key data represented by the medicine name and code, name of registration decision owner, maximum price of producer and importer, final medicine price, maximum copayment, prescription and indication restriction, the number of medicine packages. As data sources were used The List of Drugs. Analysis of categorizations in ATC group of drugs M01- NSAID, comparison of single changes and its significance. **RESULTS:** In year 2009 were 9,087,217 medicine packages from the group of NSAID expended. From this amount of medicine packages were 2,477,352 packages expended during first quartal of 2009, which represents the highest consumption of all four terms. The lowest consumption was noticed in period of second term reaching expenditure of only 2,020,514 medicine packages. Outstanding changes appeared by indometacine where prescription decreased from 9782 medicine packages to zero. Lornoxicam has appeared in third term as new medicine in categorization and his consumption increased to 3091 medicine packages in the fourth term. In all four terms dominated the same drugs on first ten places of medicine consumption (ibuprofen, diclofenac, nimesulid, combinations of ibuprofen, meloxicam, ketoprofen, flurbiprofen, piroxicam, naproxen, aceclofenac). **CONCLUSIONS:** Current state of categorization and functioning of professional bodies represent initial assumption of health policy asserting. Patient registries are helping tool in assessing effectiveness of medicines and cost efficacy and should be legislated. There is a disadvantage of administrative burden. Patient co- payment has increasing tendency due to removing responsibility for own health on patients.

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CONSUMPTION OF BISPHOSPHONATES FOR THE TREATMENT OF OSTEOPOROSIS

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OBJECTIVES: The objective was to analyze trends in the consumption of bisphosphonates for the treatment of osteoporosis in 2002–2006. **METHODS:** The prescription-based database of the General Health Insurance Company of the Czech Republic (VZP CR), the largest health insurance company of the Czech Republic that covers about 65% of the Czech population, was used as the source of data from 2002–2006. Health insurance is compulsory under Czech law. In 2002–2006, alendronate and risedronate (in both once-daily and once-weekly formulations) were available for the treatment of osteoporosis. The prescription of the two bisphosphonates is restricted to specialists in internal medicine, orthopaedy, rheumatology, gynecology and endocrinology. **RESULTS:** In 2002–2006, as many as 63 251 (0.94%) and 21 064 (0.31%) patients (insured persons) refilled at least one prescription for alendronate and risedronate, respectively. Men accounted for 3% of the bisphosphonate consumption. The age of bisphosphonate consumers was 69 years (median). Bisphosphonates were prescribed most often by physicians specializing in internal medicine, orthopaedy and rheumatology. The mean alendronate and risedronate consumption rates were 5.2 and 1.5 defined daily doses (DDD)/1000 insured persons/day, respectively. Mean DDD per year/patient was higher in women than in men (204 versus 186 for alendronate and 179 versus 172 for risedronate). The number of patients on alendronate increased by 83% from 2002 to 2006. **CONCLUSIONS:** Signals of inadequate osteoporosis treatment in the Czech population in 2002–2006 were found. The consumption of bisphosphonates is particularly low in men. The increasing consumption rates of alendronate could be considered as a positive trend. The project was fully supported by grant No. 103107 (2007–2009) from the Charles University Grant Agency.

PMS65

RETROSPECTIVE OBSERVATIONAL DATABASE ANALYSIS OF TNF-Á INHIBITOR SWITCHING PATTERNS IN PATIENTS IN THE UNITED STATES WITH RHEUMATOID ARTHRITIS IN TWO DISTINCT "NATURALISTIC" TREATMENT SETTINGS USING A PRE-PROGRAMMED DATA ANALYSIS TOOL

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OBJECTIVES: Evaluate 12 month switch patterns among patients taking anti-TNFs for rheumatoid arthritis (RA) in the context of validating a Rheumatoid Arthritis Outcomes Analyzer (RAOA); a data analysis tool incorporating pharmacy, medical claims, and member eligibility information. **METHODS:** The study was conducted utilizing claims data from a two large commercial data sets: Cohorts #1 and #2. Facilitated by the RAOA, medical and pharmacy claims were entered into two distinct data sets for inclusion in the analysis. Patients were ≥18 years of age, received ≥ one traditional (non-biologic) or biologic DMARD between January 2005 and December 2007, and had ≥ two RA diagnoses (ICD-9 CM 714.0X) ≥ two months apart. For the switch analysis, patients had at least 18 months continuous eligibility; 6 months prior to index date (initial anti-TNF) and treatment naïve, and 12 months post. **RESULTS:** A total of 2177 (Cohort #1) vs. 1113 (Cohort #2) patients entered the analysis. In Cohort #1, 426 (19.6%) received adalimumab, 1123 (51.6%) received etanercept and 628 (28.8%) received infliximab as initial treatment. In Cohort #2, 355 (31.9%) received adalimumab, 509 (45.7%) received etanercept and 249 (22.4%) received infliximab. In both Cohorts, 75% were female. During the twelve months following the index date, 161 (7.4%) vs. 91 (8.2%) switched to another biologic DMARD; 133 (6.1%) vs. 87 (7.8%) switched to another anti-TNF biologic and 28 (1.3%) vs. 4 (0.4%) to a non anti-TNF biologic DMARD. Twenty-seven (6.3%) vs. 44 (12.4%) of patients in the adalimumab sub-group switched to an anti-TNF biologic compared to 99 (8.8%) vs. 37 (7.3%) for etenercept and 7 (1.1%) vs. 6 (2.4%) for infliximab. **CONCLUSIONS:** Analytic tools such as the RAOA will allow payers and policy makers to better understand utilization and treatment patterns easily and quickly. Replication and validation of outputs from these tools are important to establish the precision of results.

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PENETRATION OF MONOCLONAL ANTIBODIES ONTO FINNISH PHARMACEUTICAL MARKET

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OBJECTIVES: Monoclonal antibodies (MAB) are biomedicines used for treatment of cancer, rheumatoid arthritis, psoriasis and inflammatory intestinal diseases. Since the first market entry in 1996 in Finland, their sales have increased continuously. We describe the penetration of MABs onto the Finnish pharmaceutical market in 1996–2009. **METHODS:** The sales of MABs (wholesale figures in million euros, € M) with marketing authorization were extracted by calendar year from the market database SLD Pharma (Finnish Pharmaceutical Data Ltd.) based on active substances. Annual figures were converted into 2009 values with the annually-updated Finnish National Pensions index (Social Insurance Institution). **RESULTS:** In 2009, the sales of the 17 MABs were €109 M or 5.6% of the total pharmaceutical market value (€1900 M). On the hospital market (73% of MAB sales in 2009), however, the respective share was 16% following a steady increase in 1999–2009. Up to the end of 2009, the overall cumulative MAB sales exceeded €479 M. Infliximab showed the highest cumulative sales of €120 M (entry in 1999). Adalimumab penetrated the market even more rapidly, with cumulative sales of €109 M (entry in 2003), and became the most-sold active substance in 2009 in Finland. The third MAB exceeding cumulative sales of €100 M was rituximab (entry in 1998). In terms of first-year sales, adalimumab was the most successful MAB, amounting to over €6 M. Bevacizumab achieved the second-highest first-year sales (€1.8 M in 2005), while the third MAB exceeding €1 M sales was ranibizumab (€1.7 M in 2007). **CONCLUSIONS:** The penetration of several MABs onto the Finnish pharmaceutical market has been very successful within a short period of time.

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CONJOINT ANALYSIS OF REDUCTION OF CO-PAYMENT RATE OF NATIONAL HEALTH INSURANCE SYSTEM IN JAPAN

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BACKGROUND: In Japanese national health insurance system, there is some limit for monthly co-payment amount. In some diseases, AIDS, chronic renal failure with dialysis and hemophilia, co-payment limits are additionally reduced. Patient groups for myeloma, cervical cancer, hepatitis, chronic myelogenous leukemia and rheumatoid arthritis argued that co-payment reduction should be implemented to their diseases. **OBJECTIVES:** To conduct conjoint analysis to determine how people value various factors of diseases in decision-making process for co-payment reduction. **METHODS:** We determined six factors, i.e., influence for life-years/QOL (low/high), availability for medicines (yes/no), number of patients (5,000/50,000/500,000), disease duration (short/long) and out-of-pocket expense per 1 month (JPY10,000/JPY100,000, USD1 = JPY90) and developed questionnaire. Ninety-six patterns are reduced to 26, via orthogonal methods. a total of 1163 participants filled questionnaire via web survey system. We adopted panel-logit model to estimate odds ratios for each factors. **RESULTS:** All 6 factors significantly influenced peoples' decision-making process. Coefficient for each factors were as follows; out-of-pocket expense: 2.61 > influence for QOL: 0.976 > disease duration: 0.884 > influence for life-years: 0.831> number of patients: 0.105 > availability for medicines: –0.18, respectively. Based on this estimation, when we consider characteristics of anti-rheumatoid biologics, more than 95% people think that out-of-pocket rate should be reduced. **CONCLUSIONS:** Various factors contribute to people's attitude for co-payment reduction. This quantitative result would be helpful for decision-making process in national health insurance system.